

Climate change communication



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Photo courtesy of Gary Syrba

June 29, 2012









Why address climate change & agriculture?

1. Climate change is real.
2. Scientists are concerned about its effect on agriculture.
3. To help farmers adapt to changes and be part of the climate change solution.

A wide-angle photograph of the Mackinac Island Bridge spanning Lake Michigan. The bridge is a long, multi-span truss bridge with a suspension section on the right. The sky is filled with large, dramatic clouds illuminated by the warm light of a sunset or sunrise. In the foreground, there is a grassy area with some wildflowers. A green rectangular box is superimposed over the center of the image, containing white text.

Break out 1: have you experienced climate change? If so, how?

Photo courtesy of Gary Syrba

Weather and climate

Temperature – humidity – rainfall – wind – snowfall – etc.

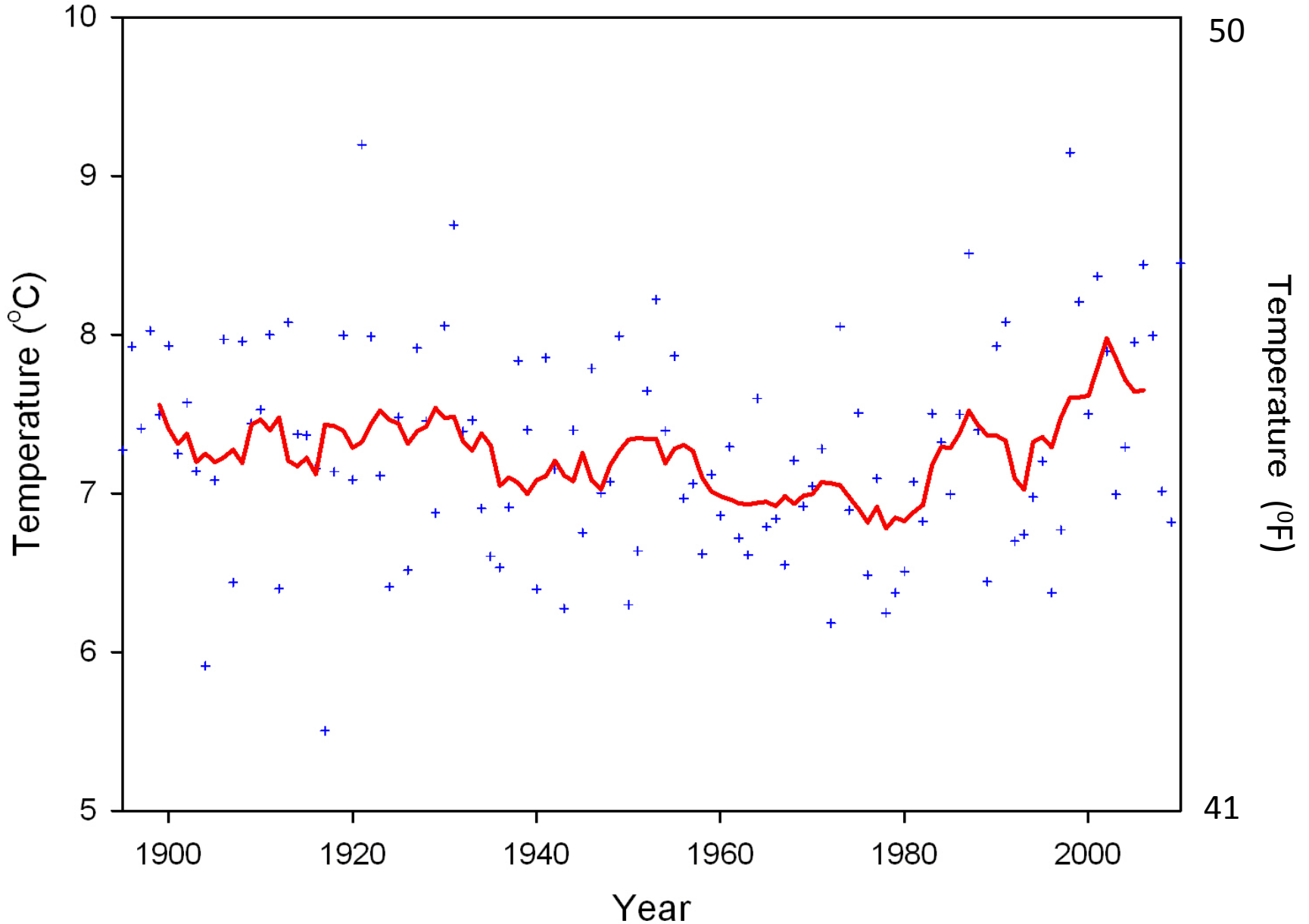
WEATHER: actual conditions at a given time, day-to-day, and even hour-to-hour.

CLIMATE: average conditions in a particular place over time, usually over a 30-year span.

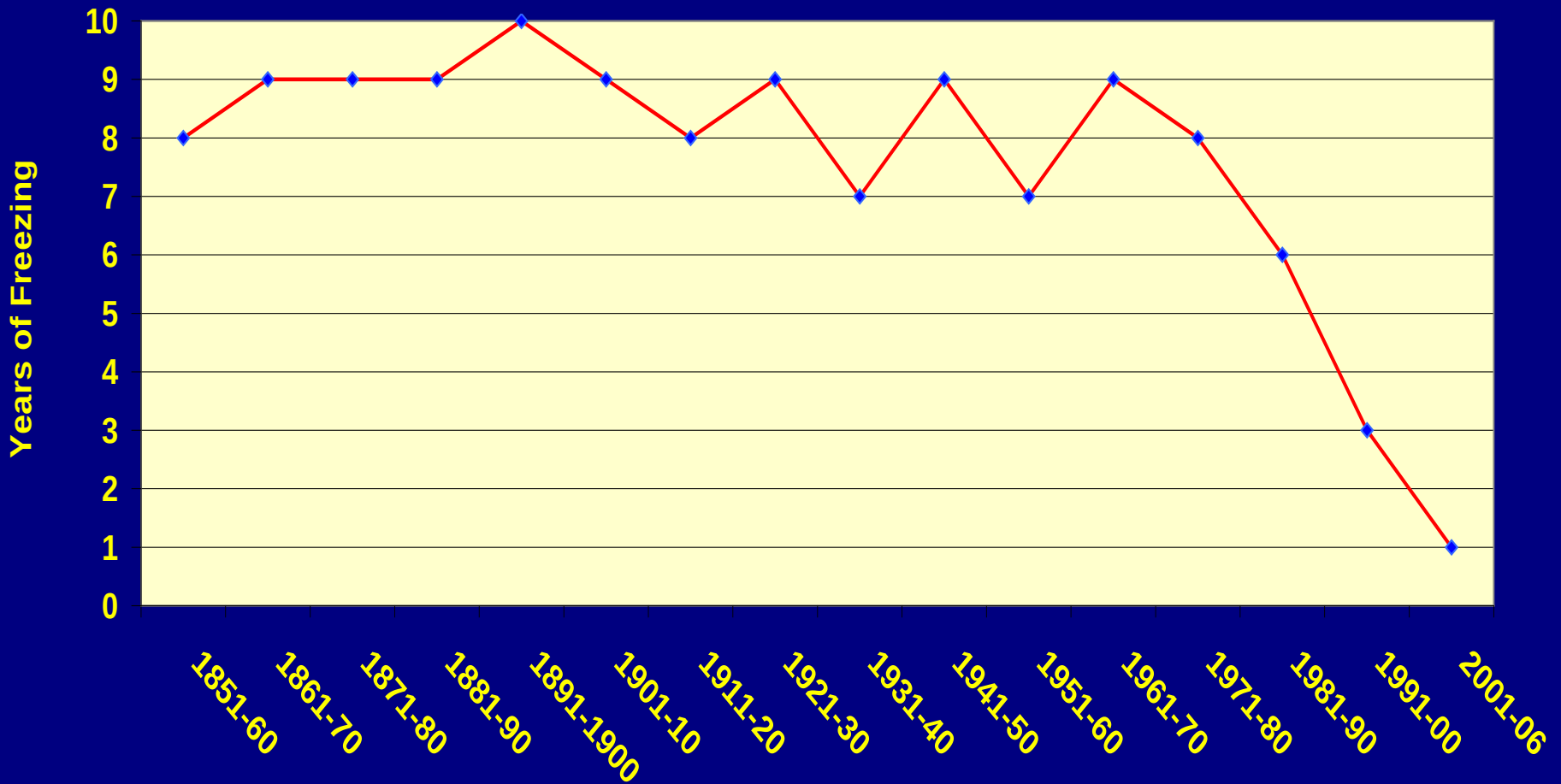
CLIMATE CHANGE: Change in average conditions sustained over several decades or longer.



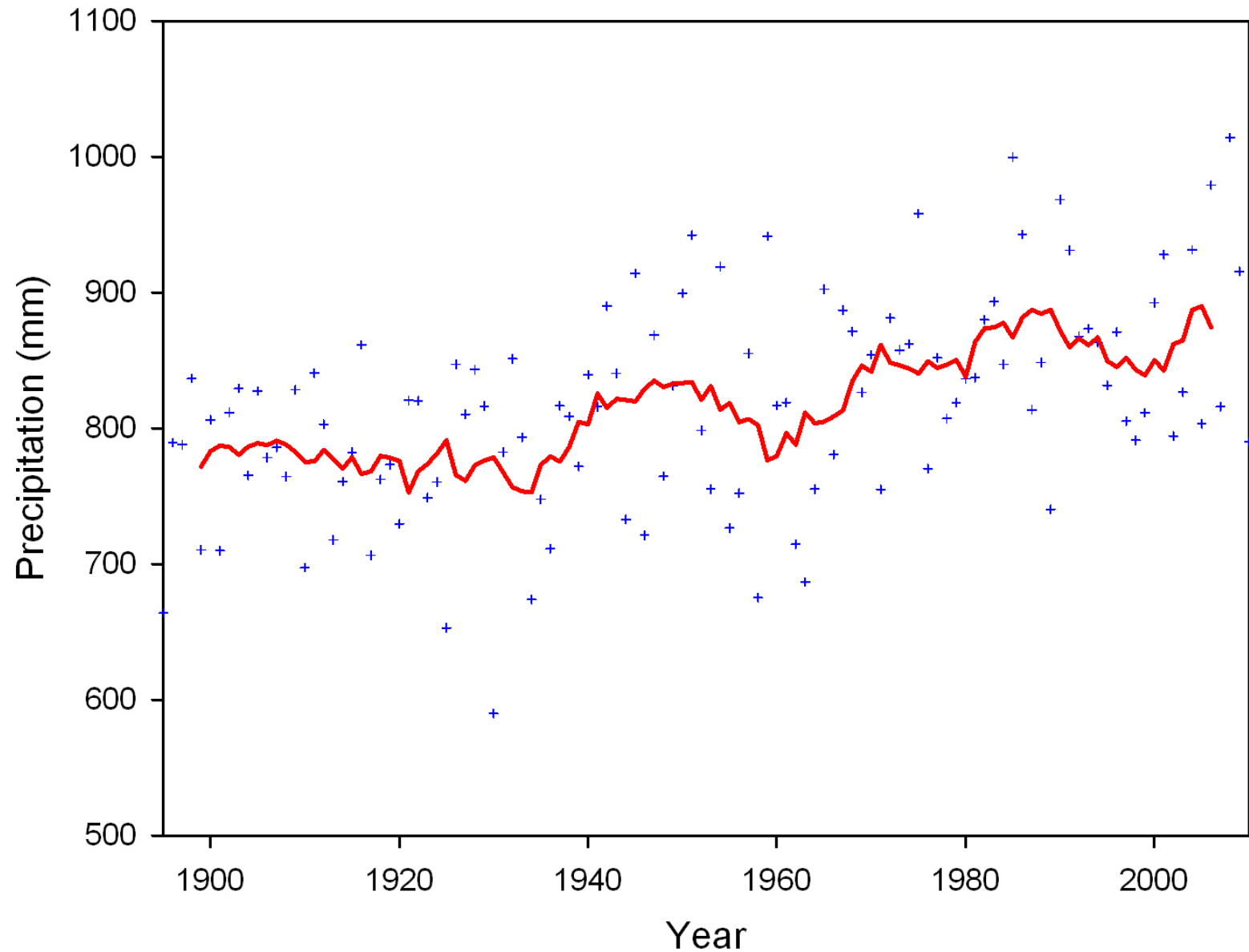
Average temperatures in Michigan: 1895-2010



Years frozen -- Grand Traverse Bay (1851-2006)



Annual precipitation for Michigan: 1895-2010

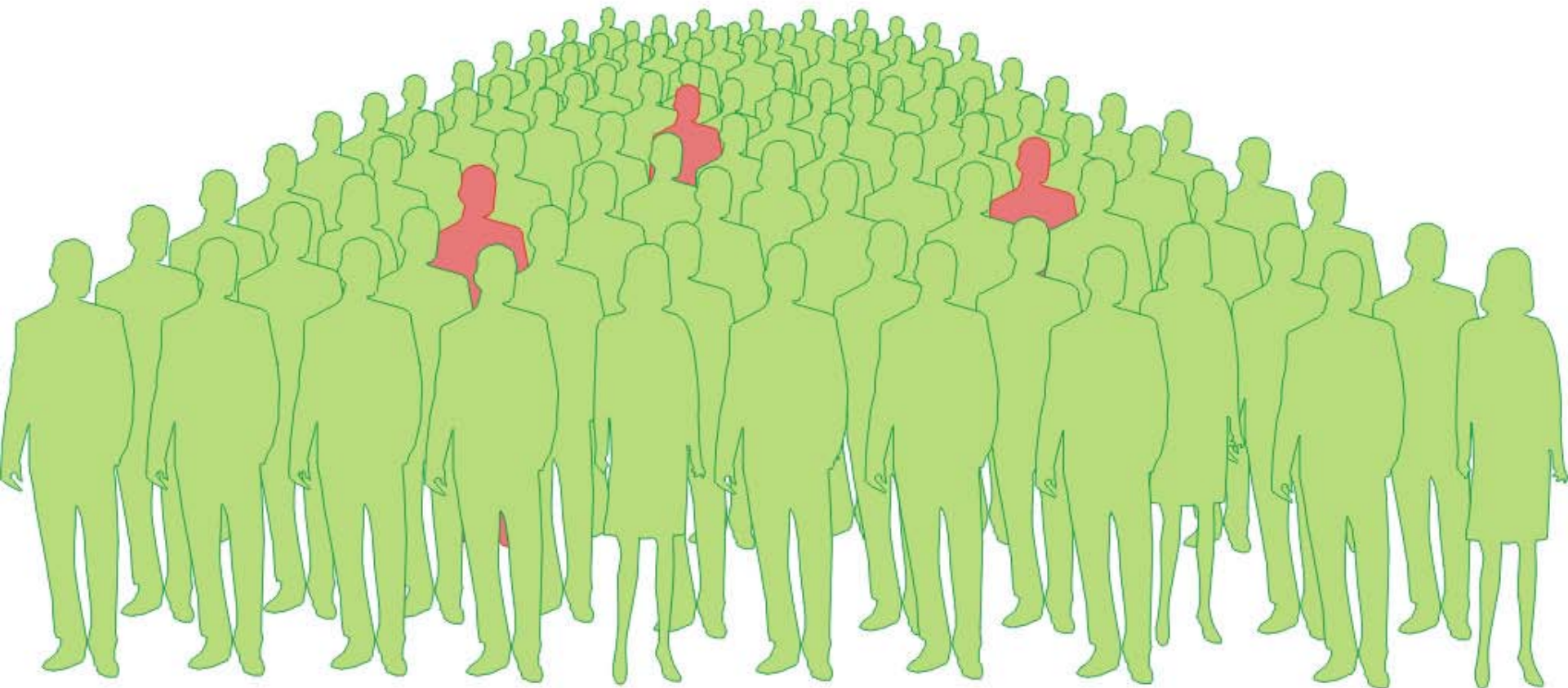


The scientific consensus

- Warming observed over the last century is highly unusual.
- Present conditions are outside the range of natural cycles experienced by humans.
- Natural changes (sun, volcanoes, etc) continue to affect climate today...
- ...but warming of the last century is primarily human-induced.

Who agrees with the scientific consensus?

97 out of 100 climate experts think humans are changing global temperature



Who agrees with the scientific consensus?

- US Climate Change Science Program (created by George W Bush Admin)
- US National Academy of Sciences and national academies of 32 other nations (none disagree)
- Every major scientific organization whose members include climate scientists
- More than 97% of climate researchers actively publishing in the field (NAS, 2010)
- The Pentagon, Wal-Mart, American Electric Power, The Pope, The Dalai Lama
- Every major religious denomination w/ a climate change statement except the Southern Baptist Convention

So what should we do about climate change?



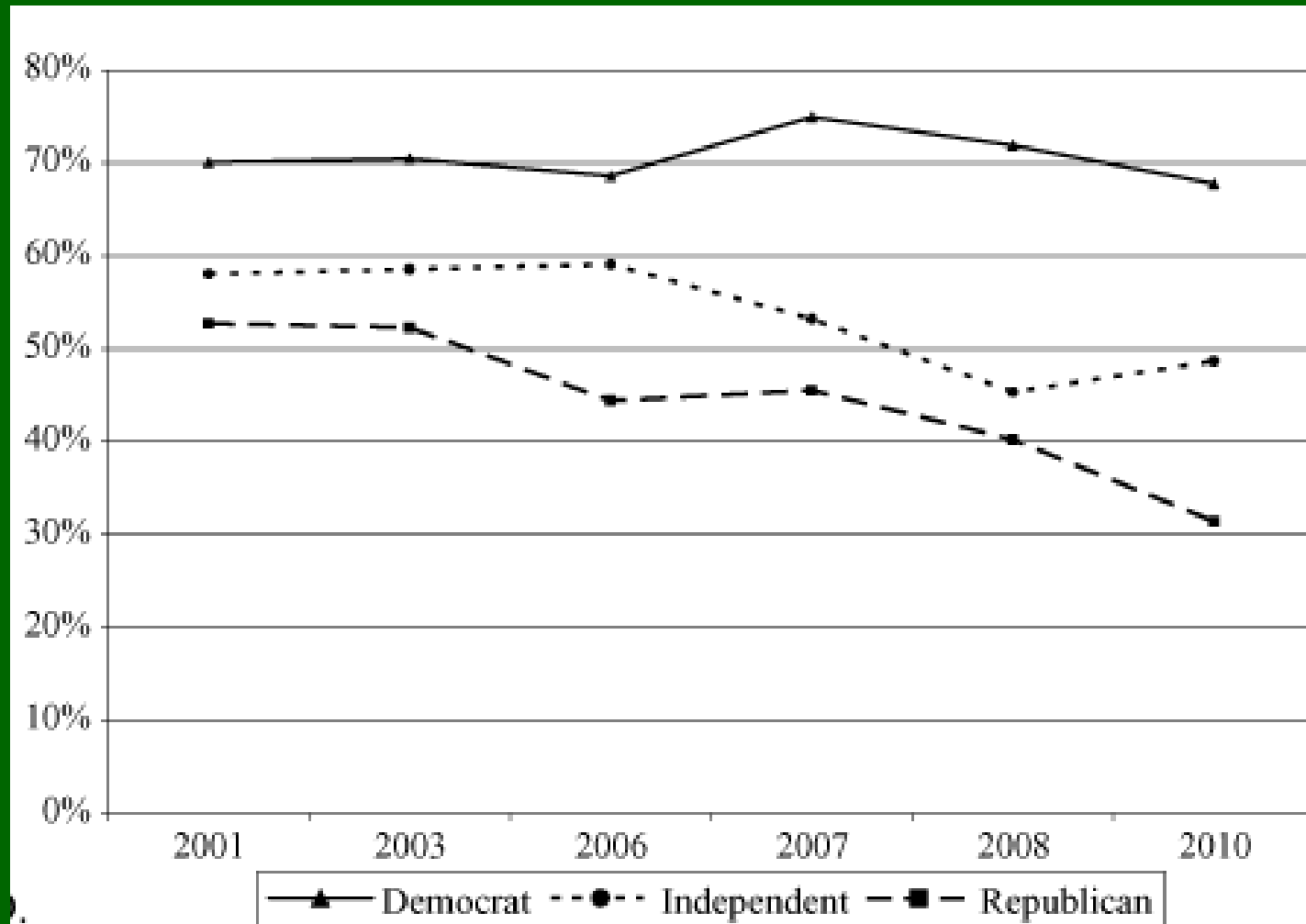
Break out 2: why do you think it is a contentious question?



Photo courtesy of Gary Syrba

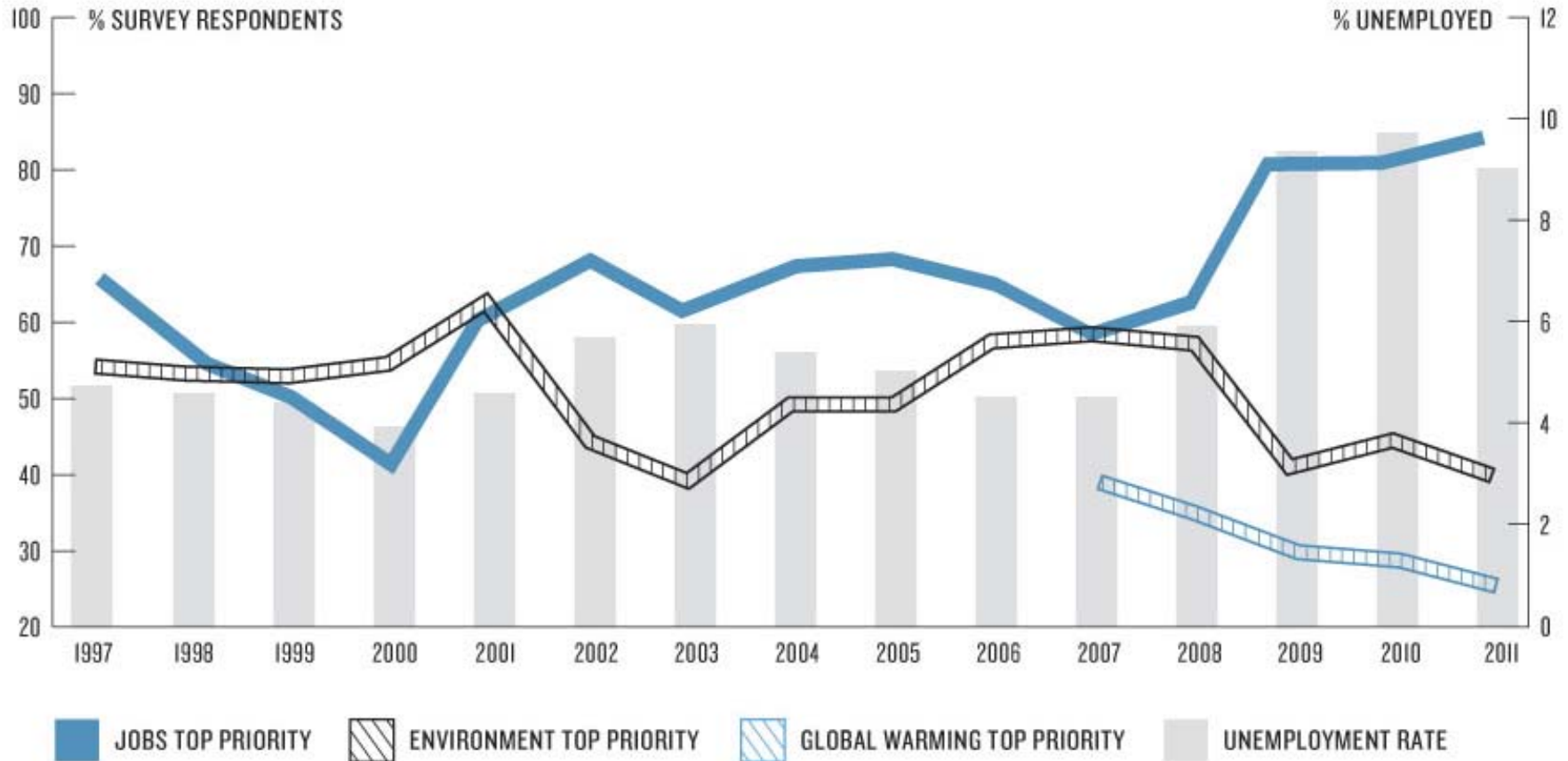
There's a political divide

Percent who believe changes in Earth's temperature due more to human activities than to natural changes



When the economy is hurting...

Relationship between the economy & perceived priorities



What's going to happen??

Sources of uncertainty in climate projections

1. Lack of complete knowledge of how the climate works
2. Natural variability in the climate system
3. Inability to predict human behavior



“Uncertainty” is not well understood

- Biological and social uncertainties are facts of life
- “Uncertainty language” - barrier to public understanding
 - Scientists: “how well something is known”
 - Public: “not knowing”
 - Less than complete certainty $\neq$ not knowing anything

Climate change is overwhelming

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June 6, 2012

Earth Is Headed for Disaster, Interdisciplinary Team of Scientists Concludes

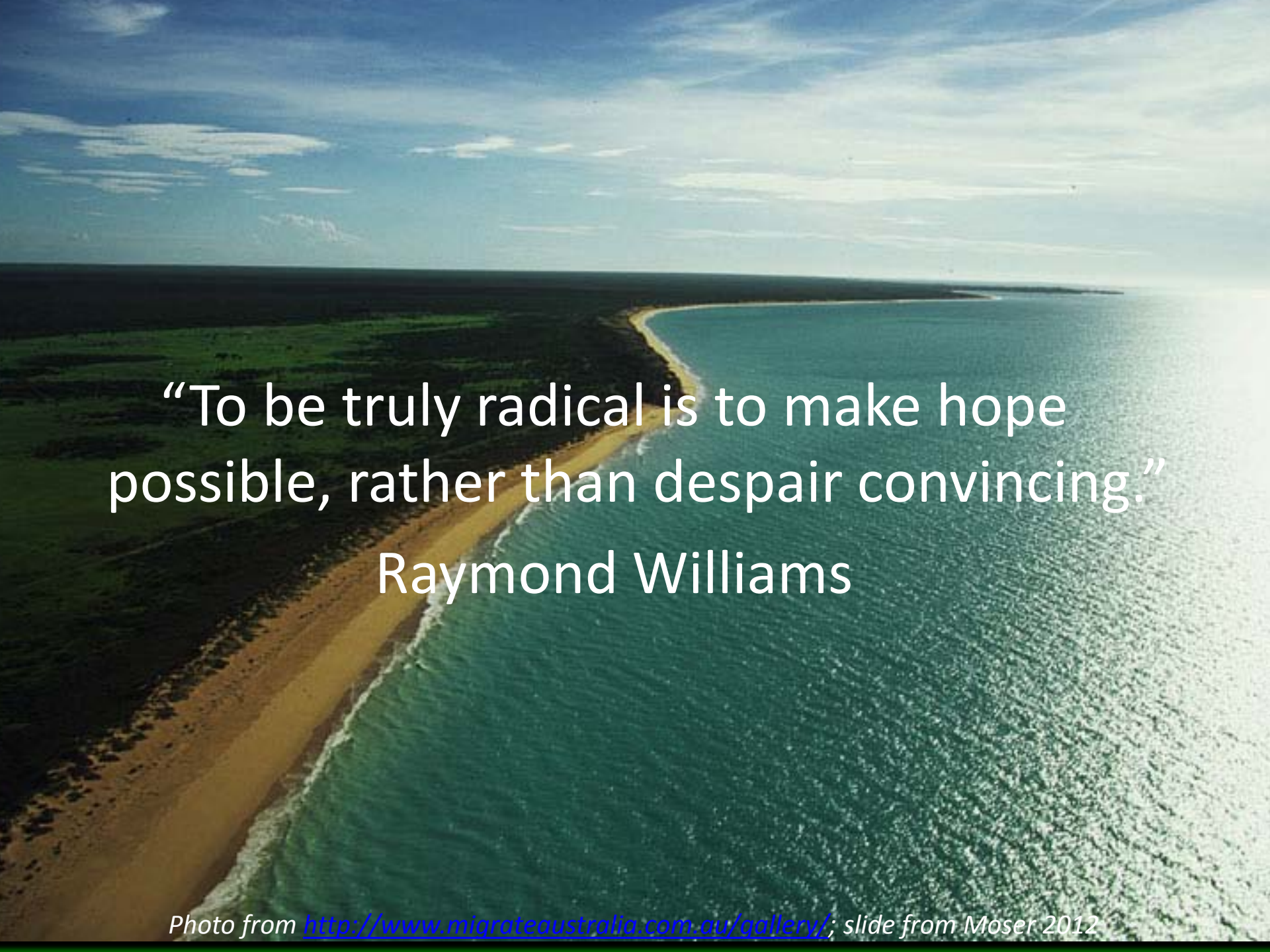
By Paul Basken

An interdisciplinary group of 22 scientists, combining paleontological evidence with ecological modeling, has concluded that the earth appears headed toward catastrophic and irreversible environmental changes.

Global Warming

When his ship first came to Australia,
Cook wrote, the natives
Continued fishing, without looking up.
Unable, it seems, to fear what was too
large to be comprehended.

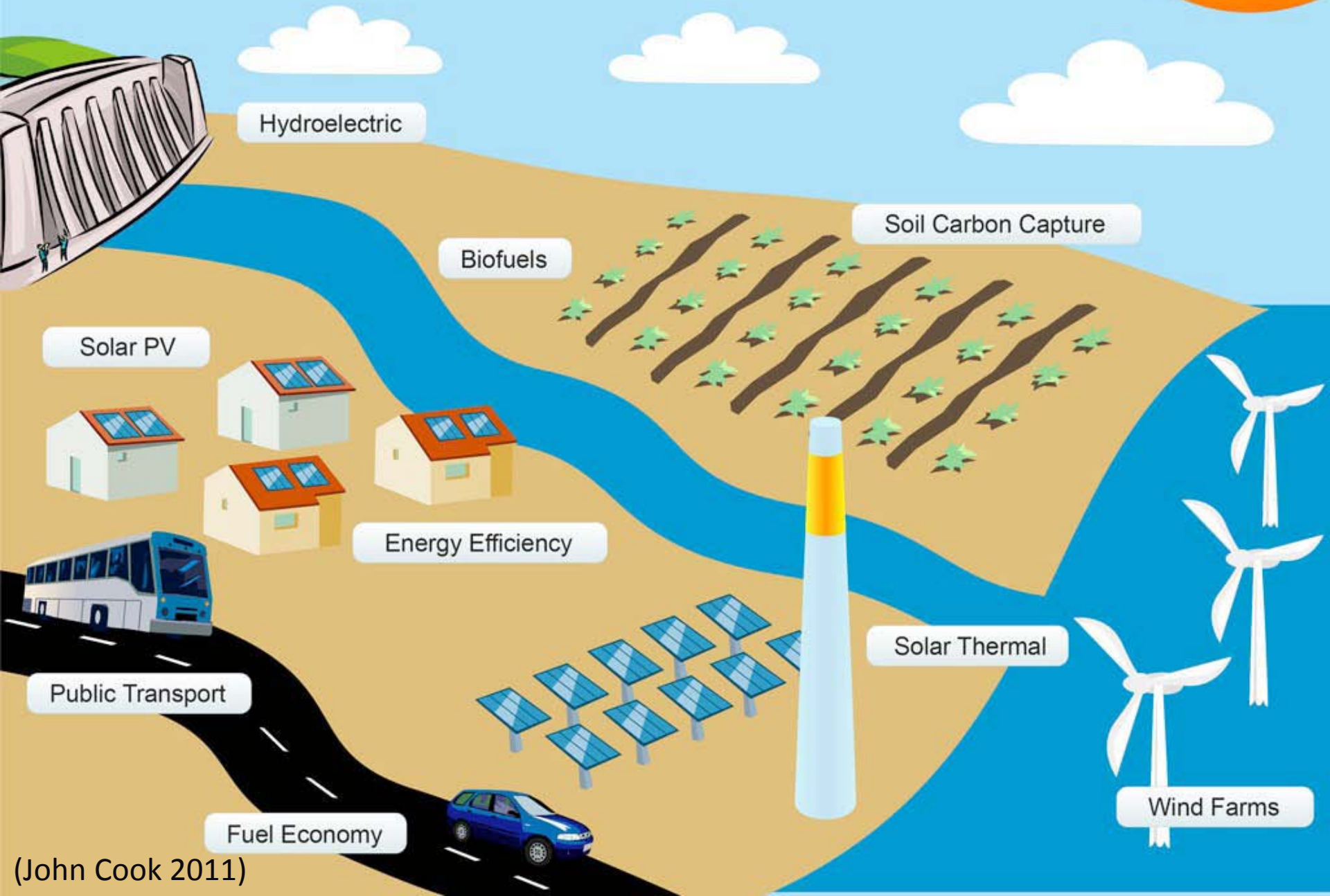
Jane Hirshfield, After (2006)



“To be truly radical is to make hope possible, rather than despair convincing.”

Raymond Williams

Climate Solutions: we have the technology!



Doing something involves our values

Addressing climate change means assessing the nature of acceptable risks, impacts, costs and tradeoffs.

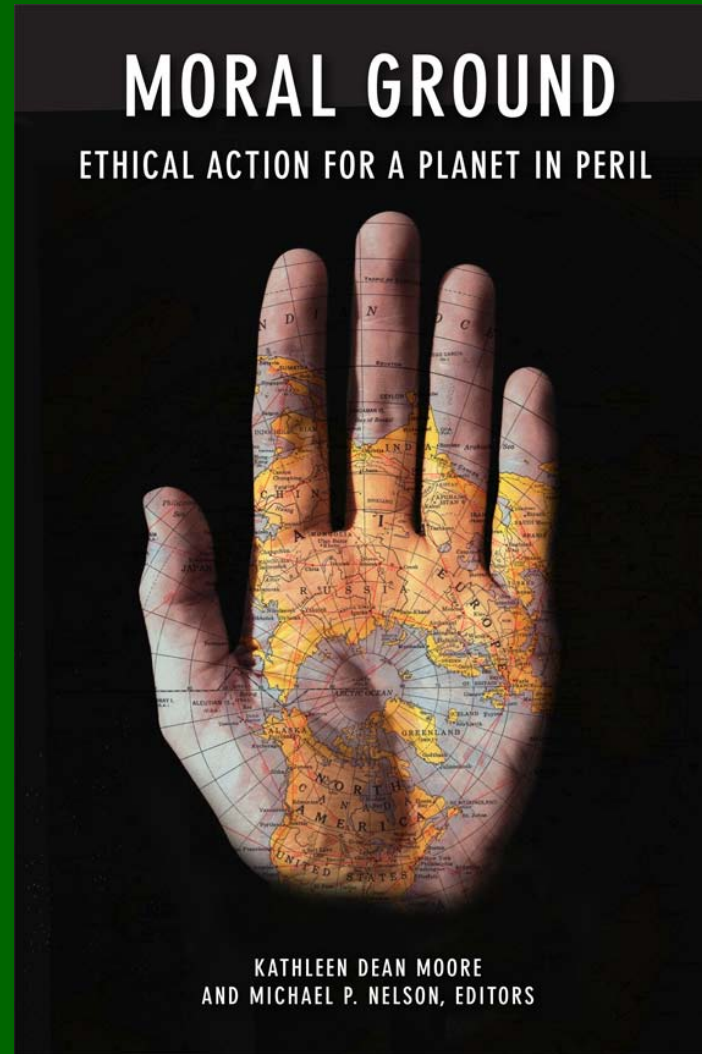
Any policy consideration is going to impose change on some group. These changes would result in costs and/or benefits for different groups.

So sometimes people debate the science rather than openly debate the values.

Moral leaders on why climate change is a moral issue and obligation



Michael Nelson



Kathleen Dean Moore



Do we have a moral obligation to take
action to protect the future of a planet in
peril? If so, why?

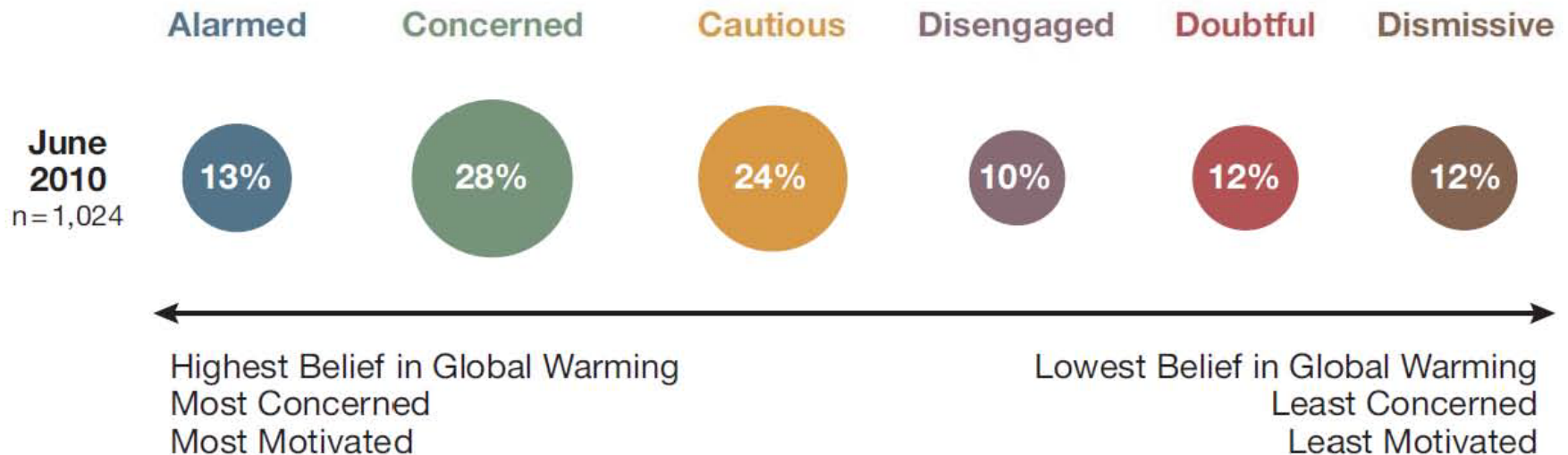




Dialogue: let's talk and listen!

- Mass/one-way “communication”
 - is not enough
 - is not a solid bond
- To change our behavior, we need social support
- We need more safe forums for deeper social engagement, ongoing dialogue, and social accountability

The Six Americas



Communication plan

- Audience:
 - What do they care about?
 - Concerns/priorities?
- What is my communication goal?
 - To inform/educate?
 - To elicit a certain type of behavior response?
- How can I frame the issue?
 - National security?
 - Livelihood?

Communication plan

- What is my message?
 - What do I want my audience to remember?
- Who is the best messenger for this?
 - Who does my audience trust?
- How is this message best delivered?
 - What media does my audience read, listen to or watch?
 - Where do they feel safe discussing important issues?



United Methodist Social Principles – Global Climate Stewardship



Open hearts. Open minds. Open doors.
The people of The United Methodist Church®

OUR CHURCH	OUR FAITH	OUR PEOPLE	OUR WORLD
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Global Climate Stewardship

¶ 160 D) *Global Climate Stewardship* —We acknowledge the global impact of humanity's disregard for God's creation. Rampant industrialization and the corresponding increase in the use of fossil fuels have led to a buildup of pollutants in the earth's atmosphere.

These "greenhouse gas" emissions threaten to alter dramatically the earth's climate for generations to come with severe environmental, economic, and social implications. The adverse impacts of global climate change disproportionately affect individuals and nations least responsible for the emissions.

We therefore support efforts of all governments to require mandatory reductions in greenhouse gas emissions and call on individuals, congregations, businesses, industries, and communities to reduce their emissions.

Examples of climate change videos

Extreme heat: <http://climatewisconsin.org/story/extreme-heat>

Black balloons: <http://www.youtube.com/watch?v=gcMNZuelyNI>

Train: <http://www.youtube.com/watch?v=s- LBXWMCAM>

Blue Men: <http://www.youtube.com/watch?v=snPdEl0Duoo>

Climate voices: <http://www.climate-voices.org/>

Stories of climate: <http://climatewisconsin.org/>

Young voices for the planet: <http://www.youngvoicesonclimatechange.com/>

Top “10”...help me out!

1. Difference between weather and climate
2. Carbon cycle
3. There are more greenhouse gases than just carbon dioxide
4. What microbes are, what they do
5. Scientific uncertainty
6. How to dialogue about contentious issues
7. How to talk about what we value

Thanks so much!



Photo courtesy of Gary Syrba